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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/817,433

04/05/2004

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08/31/2006

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EXAMINER

TRAN, LY T

ART UNIT

PAPER NUMBER

2853

DATE MAILED: 08/31/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/817,433	YOSHIDA ET AL.	
	Examiner	Art Unit	
	Ly T. TRAN	2853	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 June 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) 1-10 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 11-19 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>8/20/04</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

1. Claims 2, 4-10 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected species, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on 6/1/06.

Note: claims 1 and 3 are also withdrawn because they're directed to species I.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 11-17 are rejected under 35 U.S.C. 102(bas being anticipate by Hayakawa et al (USPN 6,422,680).

With respect to claim 1, Hayakawa discloses a liquid injection apparatus comprising liquid injecting head (fig.3: element 5) for injecting the liquid, it's necessary to have a liquid retaining portion such as a cartridge for retaining liquid; and a maintenance unit (fig.3: element 6) for discharging the liquid injected by the liquid injecting head (element 5) through the interior of the cap (element 7), wherein, when the liquid injecting head (element 5) is moved in the injecting zone, the cap is placed at a reference position at which the cap is escaped from the path of the liquid injecting head, and when the liquid

injecting head is moved outside the liquid injecting zone, the cap is located at a set position at which the cap opposes the liquid injecting head (fig.3, Column 9: line 60-67).

With respect to claim 12, Hayakawa discloses the maintenance unit (element 6) includes a casing main body (element 13) and a slider (element 10) on which the cap (element 7) is mounted, the slider being permitted to move with respect to the casing main body by contacting the liquid injecting head; wherein the casing main body has a guide portion (element 126) for supporting the cap at the reference position; and wherein the guide portion guides the cap to the set position in accordance with the movement of the slider with respect to the casing main body.

With respect to claim 13, Hayakawa discloses the cap (element 7) has a positioning member that is capable of contacting the guide portion; wherein, when supported by the guide portion with the positioning member such that the cap, the cap is maintained at the reference position; and wherein, when guided by the guide portion with the positioning member, the cap is placed at the set position (Column 11: line 53-57).

With respect to claim 14, Hayakawa discloses the slider (element 10) is secured to the casing main body (element 13) with a first urging member (element 17), the first urging member urging the slider toward the casing main body such that the cap is placed at the reference position.

With respect to claim 15, since Hayakawa discloses that the slider (10) is reciprocating with respect to the casing main body, it is necessary to provide a drive mechanism for driving the slider.

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With respect to claim 16, Hayakawa discloses the cap (element 7) is secured to the slider (element 10) with a second urging member (element 11) urging the cap vertically, the slider (element 10) including a guide member for vertically guiding the movement of the positioning member urged by the second urging member, the guide member restricting an upper limit of the vertical movement of the positioning member (fig.3).

With respect to claim 17, Hayakawa discloses the cap (element 7) includes a support member (element 9) contacting and supporting the liquid injecting head when the cap is located at the set position.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hayakawa (USPN 6,422,680) in view of Hashimoto (USPN 5,504,508).

Hayakawa fails to teach the interior of the cap is divided into at least two sections.

Hashimoto teaches the interior of the cap (fig.2: element 1) is divided into at least two sections (element 1a, 1b).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to divide the cap into two sections as taught by Hashimoto. The motivation of doing so is to prevent mix ink.

4. Claims 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hayakawa (USPN 6,422,680) in view of Hashimoto (USPN 5,504,508) as applied to claim 11 above, further in view of Asaki (USPN 6,688,730).

The combination of Hayakawa and Hashimoto fails to teach the liquid retaining portion retains a pigment ink and a reactant ink

Asaki teaches the liquid retaining portion retains a pigment ink and a reactant ink (Column 28: line 28-36).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide the reactant ink as taught by Asaki. The motivation of doing so is to degrade dispersion stability of the black ink.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ly T. TRAN whose telephone number is 571-272-2155. The examiner can normally be reached on M-F (7:30am-5pm).


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen Meier can be reached on 571-272-2149. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

LT

August 29, 2006



STEPHEN MEIER
SUPERVISORY PATENT EXAMINER